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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,247	12/14/2005	Hirokazu Ooe	2936-0241PUS1	5978
2292 7590 09/17/2010 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER				
CORMIER, DAVID G				
ART UNIT		PAPER NUMBER		
1711				
NOTIFICATION DATE		DELIVERY MODE		
09/17/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/535,247

Applicant(s)

OOE ET AL.

Examiner

DAVID CORMIER

Art Unit

1711

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4, 5, 7, 8, 10, 16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 5, 7, 8, 10, 16, and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-06)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 6, 2010 has been entered.

Response to Amendment

2. Claims 1, 4, 5, 7, 8, 10, 16, and 17 are pending. Claims 1, 8, and 17 have been amended.

3. The rejection of Claims 1, 4, 5, 7, 8, 10, 16, and 17 under 35 U.S.C. 103(a) as being unpatentable over Hashimoto (US 5,743,115) in view of Ando et al. (JP 2001-276484) and Spriggs et al. (US 5,873,268) is withdrawn in response to Applicant's amendments. In response to those amendments, new ground(s) of rejection are presented below.

Terminal Disclaimer

4. The terminal disclaimer filed on January 30, 2009 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of Co-pending Patent Application No. 10/550002 has been reviewed and is NOT accepted because the signee's name is not printed on the terminal disclaimer.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).
6. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.
7. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 8 and 10 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3-5, 7, 8, 10 and 11 of copending Application No. 10/550002. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are substantially identical to the copending claims, with the instant claims being broader in scope than the copending claims.
9. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
11. **Claims 1, 4, 5, 7, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ando et al. (JP 2001-276484), in view of Mueller et al. (US 5,504,955), in view of Kown (US 2002/0088061), in further in view of Hashimoto (US 5,743,115).**
12. Regarding Claims 1, 7, and 16, Ando discloses a washer comprising: a washing tub (103); a metal ion adding portion adding antimicrobial metal ions to water in the washing tub (B); a water flow controlling portion controlling flow of water in the washing tub (110). Ando further discloses that a controller (240) controls the ion eluting device such that a voltage is applied to the device so that ions are added to the wash water during a rinse process (machine translation, paragraphs 4 and 25). Additionally, Ando discloses that in the case of someone having a silver allergy, the wash can be performed without addition of silver ion (machine translation, paragraphs 17-19).

13. Ando does not expressly disclose the treatment substance adding portion adding a treatment substance for washing to the water in the tub, the control unit controls the metal ion adding portion, the treatment substance adding portion, and the water controlling portion, the control unit is configured to measure time of duration of each period of a predetermined process in a laundry washing session, control, in the predetermined process at least one of the metal ion adding portion and the treatment substance adding portion so that at least one of the metal ions and the treatment substance is added to the water in the washing tub and attached to a surface of laundry.

14. Mueller discloses a washing machine having additive dispensers (50, 52, 54) for adding additives of various types, e.g., fabric softeners (col. 4, lines 12-31). Fabric softener may be added during the rinse cycle (col. 11, lines 11-22).

15. Because it is known in the art to an additive dispenser and to supply fabric softener to the laundry during rinsing *if desired*, and the results of the modification would be predictable, namely, an effective means of supplying fabric softener during rinsing for softening fabric, it would have been obvious to one of ordinary skill in the art at the time of the invention to have a treatment substance adding portion, and to supply the treatment substance at least during rinsing if desired. Because Ando discloses that silver ions may or may not be used, and Mueller discloses fabric softener may or may not be used, it would have been obvious to one of ordinary skill in the art to have processes in which one of the silver ions or the softener is used.

16. Kown discloses a washing machine with a controller (100) controlling a functional water generator, detergent input part, and water supply valve, among others (Figure 6). The controller also measures the time of steps and controls the machine accordingly (paragraph 40).

17. Because it is known in the art to use a controller to control the washing cycle, and the results of the modification would be predictable, namely, an effective means of controlling all aspects of the washing process, it would have been obvious to one of ordinary skill in the art at the time of the invention to have a controller measuring time of steps, and controlling the elements of the washing machine including the metal ion adding portion, treatment substance adding portion and water flow control portion.

18. Further, Ando does not expressly disclose the predetermined process including: first and second powerful swirl periods and a mild swirl period, or first and second powerful swirl periods and a still period, control the water flow controlling portion based on the measured time such that the mild swirl period or still period comes after the first power swirl period and the second powerful swirl period comes after the mild swirl period or still period, the second powerful swirl period being shorter than the first powerful swirl period, and control the water flow controlling portion based on the measured time such that the time of the predetermined process is longer when metal ions are added than when no metal ions are added but the treatment substance is added.

19. Hashimoto discloses a washing machine having a rinse mode having the following steps (abstract; Figure 4, Figure 5): a first powerful swirl period (Figure 4c, from 1-to-3 minutes at 1000 rpm) and a second powerful swirl period (Figure 4c, less than 1 minute in length at the 4 minute mark at 100 rpm), and a mild/still period in between (Figure 4c, that portion between the first and second powerful swirl periods). This type of spin dry rinse mode reduces the consumption of water in rinse cycles (col. 1, lines 31-34).

20. Because it is known in the art to have a predetermined rinse process having a first and second powerful swirl period and a still/mild swirl period, and the results of the modification would be predictable, namely, effectively rinsing clothes, while doing so economically, it would have been obvious to one of ordinary skill in the art at the time of the invention to have first and second powerful swirl periods and a mild/still period, the mild swirl period after a first powerful swirl period and before a second powerful swirl period, the second powerful swirl period shorter than the first powerful swirl period. One of ordinary skill in the art would also recognize that in the case of supplying ions, fabric softener, or a combination, the number of rinses or duration of rinsing for complete rinsing of the clothes could vary. There are three possibilities: the same rinsing time when using ions or fabric softener, longer rinsing with fabric softener, or shorter rinsing with fabric softener. It would have been obvious to try for one of ordinary skill in the art at the time of the invention to vary the duration of rinsing such that the rinsing time is longer when metal ions are added than when no metal ions are added but treatment substance is added. MPEP 2143 - Obvious to Try.

21. Claims 4 and 5 are considered to be taught by Ando, in view of Mueller, in view of Kown, and further in view of Hashimoto as above.

22. Regarding Claim 4, Hashimoto discloses that when a “careful rinse” is selected, the controller follows a different path whereby the spin dry rinse times and spin dry times are fixed at a specific duration (Figure 12; col. 10, lines 8-33).

23. Regarding Claim 5, Hashimoto discloses in the normal operation of the machine (when “careful rinse” is not selected), the water level is set based on a detected laundry amount, and the

spin dry rinse times and spin dry times are varied accordingly (Figure 5; col. 5, line 53 to col. 6, line 25; note the ratio of times also changes depending on the laundry amount).

24. Claims 8, 10 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ando et al. (JP 2001-276484) in view of Hashimoto (US 5,743,115).

25. Regarding Claim 8, Ando discloses a washer comprising: a washing tub (103); a metal ion adding portion adding antimicrobial metal ions to water in the washing tub (B); a water flow controlling portion controlling flow of water in the washing tub (110). Ando further discloses that a controller (240) controls the ion eluting device such that a voltage is applied to the device so that ions are added to the wash water during a rinse process (machine translation, paragraphs 4 and 25). Additionally, Ando discloses that in the case of someone having a silver allergy, the wash can be performed without addition of silver ion, and if silver ions were applied, an indicator indicates that silver ion water was used (machine translation, paragraphs 17-19). Ando further discloses dehydration drying processes following washing processes and rinsing processes (machine translation, paragraphs 26-28).

26. Ando does not expressly disclose that the dehydration drying processes are by squeezing rotation of the washing tub; however, extraction of water by spinning (squeezing rotation) is extremely well-known and old in the washing machine art, and it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ando such that the dehydration drying processes are done by squeezing rotation, yielding the predictable result of effectively extracting water, soil, and detergent from clothes.

27. Ando does not expressly disclose an unbalance detecting portion detecting unbalance in the washing tub; an unbalance correcting portion correcting the unbalance by agitating inside the

washing tub; and a control unit that controls the metal ion adding portion and the unbalance correcting portion, wherein the control unit is configured to: detect whether the metal ions have been added to the water in the final rinsing before a squeezing process, and when the unbalance detecting portion detects unbalance in the washing tub during squeezing rotation of the washing tub performed thereafter, detect that the metal ions have been added in the final rinsing, control the unbalance correcting portion and the metal ion adding portion to execute rinsing for correcting uneven spreading of laundry in which, while water having the metal ions added thereto is supplied, agitation is performed.

28. Hashimoto discloses a washing machine comprising: an unbalance detecting portion detecting unbalance in the washing tub (29), an unbalance correcting portion correcting the unbalance by agitating inside the washing tub (5), a controller that controls the washing machine (Figure 3). When an unbalance is detected during a spin drying step (Figure 11; G6), water is supplied (G15), and agitation is performed (G16).

29. Because it is known in the art to rinse using silver ions, as taught by Ando, and to correct an unbalance by rinsing with water, as taught by Hashimoto, and the results of the modification would be predictable, namely, an effective means of correcting unbalance by rinsing and preserving sterilization function, it would have been obvious to one of ordinary skill in the art at the time of the invention to have an unbalance detecting portion, an unbalance correcting portion, and to correct unbalance during squeezing rotation by supplying water containing metal ions and agitating. Note that Ando appears to implicitly "detect" whether metal ions have been added for the indication function; nevertheless, because Ando teaches that knowing whether metal ions are

added or not can be important in the case of a user having a silver allergy, it would have been obvious to perform the step of "detecting whether metal ions are added..."

30. Regarding Claims 10 and 17, Ando in view of Hashimoto is relied upon as above. Ando in view of Hashimoto does not expressly disclose that when the rinsing for correcting uneven spreading of laundry is executed while the water having the metal ions added thereto is supplied, an amount of metal ions added is less than that added in previous processes. Ando does disclose that the electrolysis power between the silver electrodes can be varied to keep an antibacterial activity high by keeping the silver ion concentration over 3 ppb, while reducing discoloration of clothes by keeping the silver ion concentration below 50 ppb (machine translation, paragraphs 7, 13).

31. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify Ando in view of Hashimoto, and to lower, or reduce to zero, the quantity of metal ions in the step of rinsing for correcting uneven spreading of laundry, yielding the predictable result of preventing discoloration of laundry. Furthermore, because Ando discloses that the concentration of silver ions affects the antibacterial activity, the silver ion concentration is a result-effective variable, and it would have been obvious to optimize the silver ion concentration of the laundry by increasing or decreasing the silver ion concentration in subsequent rinses in order to maintain a high antibacterial activity. MPEP 2144.05 (B) - Optimization of Ranges (II). And furthermore, regarding Claim 17, it is extremely common and well-known to inform users of the operational status of the machine, therefore, it would have been obvious to indicate or notify that water having no metal ions is supplied.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID CORMIER whose telephone number is (571) 270-7386. The examiner can normally be reached on Monday - Thursday 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/
Supervisory Patent Examiner, Art Unit
1711

/DGC/
David Cormier
09/10/2010